

PATENT COOPERATION TREATY

REC'D 06 JUL 2005

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From the
INTERNATIONAL SEARCHING AUTHORITY

To:

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

01 -07- 2005

Applicant's or agent's file reference

P14110

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/SE 2005/000437

International filing date (day/month/year)

23-03-2005

Priority date (day/month/year)

26-03-2004

International Patent Classification (IPC) or both national classification and IPC

H04Q 7/30

Applicant

ANDREW CORPORATION et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further opinions, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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Form PCT/ISA/237 (cover sheet) (January 2004)

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

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Box No. I **Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language, _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	3-34	YES
	Claims	1, 2	NO
Inventive step (IS)	Claims	8, 9, 13, 15-17, 22-26, 31-33	YES
	Claims	1-7, 10-12, 14, 18-21, 27-30, 34	NO
Industrial applicability (IA)	Claims	1-34	YES
	Claims		NO

2. Citations and explanations:

The claimed invention

The claimed invention relates to an indoor base station suited for implementation at hotspots where many users are located in a relatively small area.

The following document are cited in the International Search Report:

D1: US 6640110 B1
D2: WO 0106801 A1
D3: US 5995851 A1

D1 and D2 are considered to represent closest prior art. D2 has priority from D1.

D1 discloses a scalable cellular communications system. D1 describes in column 8 line 65 - column 10 line 46 a module housing structure. In figure 8, it is shown how a base station comprises an outer casing or support unit (125) and a cavity (112) in which an RF amplifier printed circuit board and a power supply are housed. In other words, the base station unit is attached and supported by the outer casing or support unit. Consequently, the claimed invention as in claim 1 is not novel.

The cavity can be expressed in other words as a way to dock the base station onto or into the casing, housing or support unit. Consequently, the claimed invention as in claim 2 is not novel.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of: V

Although not stated in D1, it is well known that a power supply unit could or often will comprise an AC/DC converter. Consequently, the claimed invention as in claim 3 is considered to lack an inventive step.

It can be seen in figure 8 that the front plate of the support unit has a cavity but that the back plate is solid. It is considered obvious to a person skilled in the art that even the front plate could be solid or rigid and that the printed circuit board and the base station equipment could be mounted inside the housing. Further, it is not clear from the claim that such a construction has any functional traits that are affected by the construction. Consequently, the claimed invention as in claim 4 is considered to lack an inventive step.

It is shown in figure 8 that the back plate of the housing comprises cooling flanges. It is also described in column 9 lines 19-29 that the circuit board is cooled by means of convection. Consequently, the claimed invention as in claims 5 and 6 is considered to lack an inventive step.

As stated earlier, the circuit board that is inserted in the cavity or docking facility contains the circuit, blocks and so on of the base station. Consequently, the claimed invention as in claim 7 is considered to lack an inventive step.

The claimed invention as in claims 10-12 is considered to lack an inventive step as in it considered to relate to an obvious mechanical way to fasten or mount the housing onto a supporting structure.

Claim 14 is considered too vague to contain enough information as to what protection is sought for. As it is formulated, it is considered to lack an inventive step.

The claimed invention as in claims 18-21, 27-30 and 34 is considered to lack an inventive step with the same arguments as set forth above.

D3 is considered to merely disclose the state of the art and is not commented on further.

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Box No. VII Certain defects in the international application

The following defects in the form or content of the international application have been noted:

Claims 1-34 contain references to all 16 drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

Claim 8 claims a "base station according to any of claims 7..." Apparently, it should either be just claim 7 or some of the other claims are missing.

Claim 22 claims a "base station according to any of claims 21..." Apparently, it should either be just claim 21 or some of the other claims are missing.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawing or on the question whether the claim are fully supported by the description, are made:

Claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined.

The claim fails to define the support unit. Should it have any specific features? Otherwise any sort of device or unit could be used. Further, how is it adapted to be attached to a support structure? Does the support structure have any specific features?

As the claim is formulated, any form of casing or housing that can be attached to or mounted on any form of structure and on which it is possible to fasten a base station fits the claim.

Claim 14 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined.

The claim fails to define the function of the handle, how is it constructed, what is its purpose.